54. (New) A method of making a terminally methyl-branched iso- or anteiso-fatty acid, or a mixture of said fatty acids, which comprises culturing a bacteria strain containing said fatty acid(s) to form a fermentation solution containing said fatty acid(s), and then isolating said fatty acid(s), from the fermentation solution.

55. (New) The method of claim 54, wherein the culture medium comprises a soybean medium.

56. (New) The method of Claim 54, wherein the soybean medium has the following formula:

Soybean	5-10 %
or soybean milk or bean cake (by soybean wt.)	5-15 %
Yeast extract	0.02-0.5 %
or yeast powder	0.02-0.5 %
CaCO <sub>3</sub>	0.05-0.25 %
K₂HPO₄	0.02-0.10 %
MgSO <sub>4</sub>	0.01-0.05 %
NaCl	0.01-0.04 %
Na <sub>2</sub> MoO <sub>4</sub>	5.0-30ppm
ZnSO <sub>4</sub>	2.5-15ppm
CoC1 <sub>2</sub>	5.0-20ppm.

57. (New) The method of Claim 54, wherein the bacteria strain is from a genus selected from the group consisting of Stenotrophomonas, Xanthomonas, Flavobacterium, Capnocytophaga, Altermonas, Cytophage, Bacillus, Chryseobacterium, Empdobacter, Aurebacterium, Sphinggobacterium, Staphylococcus, Azotobacter and Pseudomonas.

58. (New) The method of Claim 57, wherein the bacterial strain is

tenotrophomonas maltophilia

59. (New) The method of Claim 58, wherein said bacterial strain is assigned ATCC 202105.

60. (New) A method of making a fermentation solution containing at least one terminally methyl-branched iso- or anteiso-fatty acid, which comprises culturing a bacteria strain containing said fatty acid in a nutritive medium to form a fermentation solution containing said fatty acid.

- 61. (New) The method of Claim 60, wherein the nutritive medium comprising a soybean medium.
- 62. (New) The method of Claim 60, wherein the soybean medium has the following formula:

Soybean	5-10 %
or soybean milk or bean cake (by soybean wt.)	5-15 %
Yeast extract	0.02-0.5 %
or yeast powder	0.02-0.5 %
CaCO <sub>3</sub>	0.05-0.25 %
K₂HPO₄	0.02-0.10 %
MgSO <sub>4</sub>	0.01-0.05 %
NaCl	0.01-0.04 %
Na <sub>2</sub> MoO <sub>4</sub>	5.0-30ppm
ZnSO <sub>4</sub>	2.5-15ppm
CoCl <sub>2</sub>	5.0-20ppm.

63. (New) The method of Claim 60, wherein the bacteria strain is from a genus selected from the group consisting of Stengtrophomonas, Xanthomonas, Flavobacterium, Capnocytophaga, Altermonas, Cytophaga, Bacillus, Chryseobacterium, Empdobacter,

Aurgbacterium, Sphinggobacterium, Staphylococcus, Azotobacter and Pseudomonas.

64. (New) The method of flam 63, wherein the bacterial strain is

Sten<u>otrophomonas maltophilia</u>.

- 65. (New) The method of Claim 64, wherein said bacterial strain is assigned ATCC 202105.
  - 66. (New) A product made by the method of Claim 60.
  - 67. (New) A product made by the method of Claim 61.
  - 68. (New) A product made by the method of Claim 62.
  - 69. (New) A product made by the method of Claim 63.
  - 70. (New) A product made by the method of Claim 64.
  - 71. (New) A product made by the method of Claim 65.
- 72. (New) A composition comprising an effective amount for preventing cancer, or treating skin disease, or providing an antiaging effect, or providing immune boosting, of at least one terminally methyl-branched iso- or anteiso-fatty acid, or a pharmaceutically acceptable salt or derivative thereof, and a pharmaceutically acceptable carrier, wherein the fatty acid has the formula R<sub>0</sub>COOH, wherein R<sub>0</sub> represents a terminally methyl-branched iso or anteiso fatty group.
- 73. (New) The composition of Claim 72, wherein the composition is in the form of a liquid, powder, capsule, tablet, injection, or encapsulated with liposome, or topically applied in the form of a cream, ointment, or lotion.

74. (New) A method of immune boosting comprising administering to a subject in need thereof an effective amount of at least terminally methyl-branched iso- or anteiso-fatty acid, or a pharmaceutically acceptable salt or derivative thereof, wherein the fatty acid has the formula  $R_0$ COOH, wherein  $R_0$  represents a terminally methyl-branched iso or anteiso fatty group.

75. (New) A method of prolonging aging comprising administering to a subject in need thereof an antiaging effective amount of at least one terminally methyl-branched iso- or anteiso-fatty acid, or a pharmaceutically acceptable salt or derivative thereof, wherein the fatty acid has the formula  $R_0$ COOH, wherein  $R_0$  represents a terminally methyl-branched iso or anteiso fatty group.

76. (New) A method of preventing cancer comprising administering to a subject in need thereof an effective amount of at least one terminally methyl-branched iso- or anteiso-fatty acid, or a pharmaceutically acceptable salt or derivative thereof, wherein the fatty acid has the formula  $R_0$ COOH, wherein  $R_0$  represents a terminally methyl-branched iso or anteiso fatty group.

- 77. (New) The method of Claim 76, where the cancer is skin cancer or mammary cancer.
- 78. (New) A terminally methyl-branched iso- or anteiso-fatty acid derivative, wherein the fatty acid has the formula R<sub>0</sub>COOH, wherein R<sub>0</sub> represents a terminally methyl-branched iso or anteiso fatty group, and wherein said fatty acid derivative has anticancer activity, selected from the following compounds:
  - (1)  $R_0$ CO-A, wherein A represents one of the following groups:

1)

2)

$$O$$
 $\longrightarrow$ 
 $COOC_2H_5$ 

3)

$$N < CH_3$$
 $CH_3$ 

4)

$$N < CH_3$$
 $CH_2CH_3$ 

5)

6)

7)

8)

$${\stackrel{\scriptstyle O}{\scriptstyle II}}_{\scriptstyle O-C-R_0'}$$

9)

10)

11)

$$HN - COOC_2H_5$$

12)

13)

$$HN-CH \leftarrow \begin{pmatrix} O \\ | \\ C - NH - CH \\ | \\ R \end{pmatrix} COOH$$

wherein in the above formula 7,  $R_0$ ' has the same definition as  $R_0$  but may be the same or different, and in the above formula 13, R is a side chain of an amino acid, and n is 0 or an integer;

- (3)  $R_0CHXCOOH$  or  $R_0CX_2COOH$ , having more than 8 carbon atoms and wherein X is Cl, I, Br, OH or  $NH_2$ ; and
- (4) lipoproteins of said terminally methyl-branched iso- and anteiso- fatty acids, which are obtained by conjugation with a protein.

- 79. (New) The product of Claim 66, which is in the form of a liquid, powder, capsule, tablet, injection, or encapsulated with liposome, or topically applied in the form of a cream, ointment, or lotion.
- 80. (New) The product of Claim 67, which is in the form of a liquid, powder, capsule, tablet, injection, or encapsulated with liposome, or topically applied in the form of a cream, ointment, or lotion.
- 81. (New) The product of Claim 68, which is in the form of a liquid, powder, capsule, tablet, injection, or encapsulated with liposome, or topically applied in the form of a cream, ointment, or lotion.
- 82. (New) The product of Claim 69, which is in the form of a liquid, powder, capsule, tablet, injection, or encapsulated with liposome, or topically applied in the form of a cream, ointment, or lotion.
- 83. (New) The product of Claim 70, which is in the form of a liquid, powder, capsule, tablet, injection, or encapsulated with liposome, or topically applied in the form of a cream, ointment, or lotion.
- 84. (New) The product of Claim 71, which is in the form of a liquid, powder, capsule, tablet, injection, or encapsulated with liposome, or topically applied in the form of a cream, ointment, or lotion.

## **DISCUSSION OF THE AMENDMENT**

All the claims have been cancelled and replaced with new Claims 53-84. Claims 53-78 correspond to cancelled Claims 22-42, 47-50 and 52, respectively. Claims 79-84 depend from Claims 66-71, respectively, and includes the limitations of original Claim 42.